ABSTRACT OF DISCLOSURE

A cyclone dust separating apparatus and a vacuum cleaner with the same is disclosed. The cyclone dust separating apparatus includes a first cyclone for separating large dust particles from air, a plurality of second cyclones for separating minute dust particles from air via a centrifugal force after dust separation at the first cyclone, and a cover disposed on an upper portion of the first cyclone and the second cyclones. The cover includes a conical guide formed at a lower center to guide air discharged from the first cyclone into the second cyclones. Because drawn-in air is repeatedly cleaned by a plurality of cyclones, the cyclone dust separating apparatus can be provided with a compact structure, can provide an effective cleaning operation, and can prevent deterioration of a suction force.